

REMARKS

Claims 14-16, 18-25, 33-40, and 42-43 remain pending in this application.

Claims 14 and 25 have been amended, as shown in the foregoing listing of claims.

The Examiner rejected claims 14-16, 18-25, 33-40, and 42 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner suggested that the terminology "initially predominantly coating the fibers of that fibrous structure preform with elemental carbon to impregnate that preform with elemental carbon" is unclear and should be substituted with "impregnating the preform with elemental carbon to initially predominantly coat the fibers of the fibrous structure." Applicants respectfully disagree with the Examiner's characterization of the current terminology as indefinite. However, to expedite the prosecution of this application, and believing the amendment to have no effect on the scope of the claims, the suggested amendments have been made. Therefore, Applicants respectfully request withdrawal of this rejection.

The Examiner also rejected claims 14-16, 18-25, 33-40, 42 and 43 under 35 U.S.C. § 102(a or e) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 6,537,654 to Gruber et al ("Gruber"), for reasons of record. Having admitted that Gruber failed to teach the limitation to the silicon carbide grain size recited in Applicants' claims, the Examiner nevertheless stated that "applicants have not shown by way of tangible evidence that the grain size of the instant claims is outside that achieved by Gruber." During a telephone conversation between the Examiner and the undersigned on August 7, 2006, the Examiner agreed that the

results of testing, such as the testing described herein, showing a silicon carbide grain size outside Applicants' claimed range of "less than about 10 microns," would "sound convincing" in overcoming the current rejection. Accordingly, Applicants submit herewith the "tangible evidence" that the Examiner seeks by way of a Declaration by Thomas D. Nixon, Ph.D.

As stated in the Declaration, Dr. Nixon initiated an experiment to produce a sample according to the teachings of Gruber (a "Gruber sample"). See Nixon Declaration, ¶ 4. It was not possible to produce a sample entirely by the teachings of Gruber, given the limited disclosure of the Gruber reference. Consequently, Dr. Nixon coordinated the production of a "Gruber sample" by a process that, in many respects, used parameters disclosed in the present application. As such, the comparison would be more demanding. Nevertheless, Dr. Nixon's experiment to produce a Gruber sample did follow, as closely as possible, the melt infiltration process taught by Gruber (*see, e.g.,* Gruber, col. 15, Ins. 29-38). See Nixon Declaration, ¶ 9.

Analysis of the Gruber sample made by Dr. Nixon showed that the silicon carbide particles present were larger than those recited in Applicants' claims. See Nixon Declaration, ¶ 10. Specifically, the photomicrographs attached to the Nixon Declaration show silicon carbide particles greater than 50 microns. Therefore, the process disclosed in Gruber does not result in a product with a silicon carbide grain size of "less than about 10 microns."

In summary, the Examiner acknowledged that Gruber fails to disclose the grain size of the silicon carbide in the Gruber material, and stated that Applicants have not shown by way of tangible evidence that the grain size of the instant claims is outside

that achieved by Gruber. Applicants have now done so. The Declaration of Thomas D. Nixon, Ph.D. submitted with this Response establishes that the Gruber material contains silicon carbide grains having a grain size outside the claimed range of less than about 10 microns. Accordingly, the cited reference fails to teach or suggest a composite having all the limitations of Applicants' claims, and Applicants respectfully request that the § 102/103 rejection based on Gruber be withdrawn.

Applicants respectfully request that the subject application be deemed in condition for allowance. If, for any reason, the Examiner feels that the above amendments and remarks do not put the claims in condition for allowance, he is requested to contact the undersigned attorney at (312) 222-8105 to resolve any remaining issues.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Stephanie J. Felicetty', with a stylized, flowing script.

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